Re-evaluation Note REV2010-07

Update on Picloram

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The purpose of this Re-evaluation Note is to notify registrants, pesticide regulatory officials and the Canadian public of the updated label amendments for picloram.

On 14 January 2009, Health Canada's Pest Management Regulatory Agency (PMRA), published Re-evaluation Decision document RVD2009-02, *Picloram*, a decision document[1] which described the PMRA's regulatory process for the re-evaluation of picloram, the comments received during the consultation process, the decision and the reasons for it. New information on buffer zones and application rates has been provided to the PMRA. An evaluation of this new information showed that the decision stated in RVD2009-02, *Picloram*, remains the same, aside from updated label amendments. To comply with this decision, registrants of products containing picloram will be informed of the specific requirements affecting their product registration(s) and of regulatory options available to them.

Measures to Minimize Risk

Labels of registered pesticide products include specific instructions for use. Directions include risk-reduction measures to protect human and environmental health. These directions must be followed by law. As a result of the re-evaluation of picloram, the PMRA is proposing further risk-reduction measures for product labels.

Human Health

- Additional protective equipment and a label statement about the potential for picloram products containing the potassium salt form to cause allergic reactions, to protect mixer/loader/applicators
- Restricted-entry intervals to protect workers re-entering treated sites

Environment

- Additional advisory label statements to reduce potential surface and groundwater contamination
- A reduction of maximum rates per application and per year in addition to buffer zones for aquatic and terrestrial habitats to protect non-target sensitive aquatic organisms and terrestrial plants

Appendix I lists all required label amendments, including instructions related to basic hygiene practices.

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1 "Decision statement" as required by subsection 28(5) of the *Pest Control Products Act*.

Appendix I Revised Label Amendments for Products Containing Picloram

The label amendments presented below do not include all label requirements for individual end-use products, such as first aid statements, disposal statements, precautionary statements, and supplementary protective equipment. Additional information on labels of currently registered products should not be removed unless it contradicts the above label statements.

To further protect human health and the environment, labels of Canadian end-use products containing picloram must be amended as follows.

I) Rate Reduction Requirement

Canadian maximum application rates of picloram must be reduced to 1.12 kg acid equivalent (a.e.) per hectare for all uses except as noted below.

The **DIRECTIONS FOR USE** section of the product label with the Registration Numbers 9005 must include the following label statement.

> For the control of leafy spurge, field bindweed, toadflax only, a spot treatment rate of 90 mL per 100 m^2 may be used provided no more than 50% of a hectare is treated.

II) Buffer Zone Requirements

The **ENVIRONMENTAL HAZARDS** section of all end-use product labels must include the following statements.

> TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

The **DIRECTIONS FOR USE** section of all end-use product labels must include the following statements.

> Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) coarse classification. Boom height must be 60 cm or less above the crop or ground.

The **DIRECTIONS FOR USE** section of the product labels with the Registration Numbers 9007, 26649 and 27634 must include the following label statements.

> Aerial application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply when wind speed is greater than 16 km/h at flying height at the site of application. **DO NOT** apply with spray droplets smaller

than the American Society of Agricultural Engineers (ASAE) coarse classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan.

The **DIRECTIONS FOR USE** section of the product label with the Registration Number 9007, 26649 must include the following label statements.

Buffer zones:

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of Application	Target/Rate (g a.e./ha)	Aquatic habitat of depth:	
		< 1 m	> 1 m
Field sprayer	Rights-of-way (240 g a.e./ha)	1	1
	Rights-of-way (455 g a.e./ha)	2	1
	Rights-of-way (1120 g a.e./ha)	4	2

For Coarse Spray (ASAE)

Method of Application	Target/Rate (g a.e./ha)		Aquatic habitat of depth:	
			< 1 m	> 1 m
Aerial	Rights-of-way (240 g a.e./ha)	Fixed-wing	85	50
		Rotary-wing	40	30
	Rights-of-way (455 g a.e./ha)	Fixed-wing	125	70
		Rotary-wing	60	35
	Rights-of-way (1120 g a.e./ha)	Fixed-wing	300	150
		Rotary-wing	125	60

For Very Coarse Spray (ASAE)

Method of Application	Target/Rate (g a.e./ha)		Aquatic habitat of depth:	
			< 1 m	> 1 m
Aerial	Rights-of-way (240 g a.e./ha)	Fixed-wing	60	35
		Rotary-wing	35	25
	Rights-of-way (455 g a.e./ha)	Fixed-wing	95	50
		Rotary-wing	45	30
	Rights-of-way (1120 g a.e./ha)	Fixed-wing	175	100
		Rotary-wing	75	45

For Very Coarse -Extremely Coarse Spray (ASAE)

Method of Application	Target/Rate (g a.e./ha)		Aquatic habitat of depth:	
			< 1 m	> 1 m
Aerial	Rights-of-way (240 g a.e./ha)	Fixed-wing	55	35
		Rotary-wing	30	25
	Rights-of-way (455 g a.e./ha)	Fixed-wing	80	45
		Rotary-wing	40	30
	Rights-of-way (1120 g a.e./ha)	Fixed-wing	150	85
		Rotary-wing	65	40

The **DIRECTIONS FOR USE** section of the product label with the Registration Number 14167 must include the following label statements.

Buffer zones:

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of Application	Crop	Buffer Zone (metres) Required for the Protection of:	
		Aquatic Habitats	Terrestrial Habitats
Field sprayer*	Wheat and barley, timothy and bromegrass (grown for seed production only)	1	5

* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

The **DIRECTIONS FOR USE** section of the product label with the Registration Number 9005 must include the following label statements:

Buffer zones:

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of Application	Crop	Buffer Zone (metres) Required for the Protection of:	
		Aquatic Habitats	Terrestrial Habitats
Field sprayer*	Rangeland and permanent grass pastures, non-cropland including rights-of-way	1	120**

* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

** uffer zones for the protection of terrestrial habitats are not required for use on rights-of-way including railroad ballast, rail and hydro rights-of-way, utility easements and roads.

The **DIRECTIONS FOR USE** section of the product label with the Registration Number 27634 must include the following statements.

Buffer zones:

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, rangelands, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

For Course Spray (ASAE)

Method of Application	Target/Rate (g a.e./ha)		Aquatic habitat of depth:		Terrestrial habitat (m)
			< 1 m	> 1 m	
Field sprayer	Rangelands, permanent grass pastures, non-cropland including rights-of-way (240 g a.e./ha)		1	1	30*
	Rangelands, permanent grass pastures, non-cropland including rights-of-way (455 g a.e./ha)		2	1	55*
Aerial	Rangelands and permanent grass pastures (240 g a.e./ha)*	Fixed-wing	20	10	650*
		Rotary-wing	15	10	475
	Rangelands and permanent grass pastures (455 g a.e./ha)	Fixed-wing	50	15	575*
		Rotary-wing	35	15	425*
	Non-cropland including rights-of-way (240 g a.e./ha)*	Fixed-wing	95	50	800*
		Rotary-wing	45	30	775*
	Non-cropland including rights-of-way (455 g a.e./ha)	Fixed-wing	175	80	800*
		Rotary-wing	70	40	750*

* Buffer zones for the protection of terrestrial habitats are not required for use on rights-of-way including railroad ballast, rail and hydro rights-of-way, utility easements and roads.

For Very Coarse Spray (ASAE)

Method of Application	Target/Rate (g a.e./ha)		Aquatic habitat of depth:		Terrestrial habitat (m)
			< 1 m	> 1 m	
Aerial	Rangelands and permanent grass pastures (240 g a.e./ha)	Fixed-wing	15	10	525*
		Rotary-wing	10	10	350*
	Rangelands and permanent grass pastures (455 g a.e./ha)	Fixed-wing	25	10	450*
		Rotary-wing	20	10	300*
	Non-cropland including rights-of-way (240 g a.e./ha)	Fixed-wing	65	40	800*
		Rotary-wing	35	25	600*
	Non-cropland including rights-of-way (455 g a.e./ha)	Fixed-wing	100	55	800*
		Rotary-wing	50	30	625*

* Buffer zones for the protection of terrestrial habitats are not required for use on rights-of-way including railroad ballast, rail and hydro rights-of-way, utility easements and roads.

For Very Coarse – Extremely Coarse Spray (ASAE)

Method of Application	Target/Rate (g a.e./ha)		Aquatic habitat of depth:		Terrestrial habitat (m)
			< 1 m	> 1 m	
Aerial	Rangelands and permanent grass pastures (240 g a.e./ha)	Fixed-wing	15	10	450*
		Rotary-wing	10	10	300*
	Rangelands and permanent grass pastures (455 g a.e./ha)	Fixed-wing	20	10	375*
		Rotary-wing	15	10	275*
	Non-cropland including rights-of-way (240 g a.e../ha)	Fixed-wing	55	35	800*
		Rotary-wing	30	25	525*
	Non-cropland including rights-of-way (455 g a.e./ha)	Fixed-wing	90	50	800*
		Rotary-wing	40	30	550*

* Buffer zones for the protection of terrestrial habitats are not required for use on rights-of-way including railroad ballast, rail and hydro rights-of-way, utility easements and roads.

The **DIRECTIONS FOR USE** section of the product labels with the Registration Numbers 9005, 9007, 26649 and 27634 must include the following statement.

> For application to rights-of-way, buffer zones for protection of sensitive terrestrial habitats are not required; however, the best available application strategies that minimize off-site drift, including meteorological conditions (e.g. wind direction, low wind speed) and spray equipment (e.g. coarse droplet sizes, minimizing height above canopy), should be used. Applicators must, however, observe the specified buffer zones for protection of sensitive aquatic habitats.

The **DIRECTIONS FOR USE** section of the product label with the Registration Number 9007 must include the following statement.

> When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

The **DIRECTIONS FOR USE** section of the product labels with the Registration Numbers 9005 and 14167 must include the following label statement.

> **DO NOT** apply by air.

III) Other Label Statement Requirements

The primary display panel of label of product with the Registration Number 9005 must include the following statement.

> POTENTIAL DERMAL SENSITIZER

The **PRECAUTIONS** section of the product label with the Registration Number 9005 must include the following statements (all other end-use products already include adequate statements).

> Wear a long-sleeved shirt, long pants, shoes plus socks, and chemical-resistant gloves during mixing, loading, application, repair and clean-up activities.

There are no preharvest, pregrazing or preslaughter intervals stated on the product label with the Registration Number 9005. For consistency with other picloram Canadian labels, the following statements must be added to the **PRECAUTIONS** section.

> For pastures and rangelands: Do not permit lactating dairy animals to graze fields within 7 days after application. Do not harvest forage or cut hay within 30 days after application. Withdraw meat animals from treated fields at least 3 days before slaughter.

The primary display panel of labels of products with the Registration Numbers 9007 and 26649 does not clearly indicate registered uses; therefore, the following label statement must be added.

> [*Product name*] is for use on rights-of-way only to control unwanted brush and broadleaf weeds.

The **PRECAUTIONS** section of labels of end-use products containing the potassium salt form of picloram must include the following statement.

> Prolonged or frequently repeated contact may cause allergic reactions in some individuals.

The **PRECAUTIONS** section of all end-use product labels must include the following statements.

> Do not apply this product in a way that this product will contact workers or other persons, either directly or through drift. Only handlers (mixers, loaders and applicators) wearing personal protective equipment may be in the area being treated during application.
>
> See **DIRECTIONS FOR USE** for crop specific REIs

For all end-use products, a **DIRECTIONS FOR USE** section must appear and include the following statements.

> Do not apply more than once per year.
>
> For agricultural uses: Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.
>
> For non-crop uses: Do not enter or allow entry into treated areas during the restricted-entry interval (REI) of 12 hours or until sprays have dried.
>
> For the use as a direct injection into treated plants: Restricted-entry interval is not required when picloram is directly injected into treated plants.
>
> DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

An **ENVIRONMENTAL HAZARD** section must appear on all end-use product labels and must include the following statements.

> Picloram is persistent and will carryover. It is recommended that any products containing picloram not be used in areas treated with this product during the previous season.
>
> The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) and/or the depth to the water table is shallow.
>
> To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.
>
> Avoid application when heavy rain is forecast.
>
> Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.